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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,439	08/13/2001	John Mellert	033337/0131	4183
22428	7590	08/24/2004	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			TRAN, DZUNG D	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/927,439

Applicant(s)

MELLERT ET AL.

Examiner

Dzung D Tran

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/13/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>02/12/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugiyama et al. US patent no. 5,883,735.

Regarding claim 1, Sugiyama discloses an optical amplifying repeater 11 (same as line unit), connected to at least a first optical fiber 12 (col. 4, line 28) and a second optical fiber 12', said line unit comprising:

a first line assembly including: a first supervisory unit 23 (same as a first monitoring receiver) , coupled to said first optical fiber 12 (col. 4, line 28), for receiving first command signal (same as first control information) associated with a first optical signal (col. 3, line 61) transmitted over said first optical fiber 12 and at least one first pump laser 33 (col. 4, line 42), coupled to said first optical fiber 12 (figure 14);

a second line assembly including: a second supervisory unit 23' (same as a second monitoring receiver) coupled to said second optical fiber 12' and at least one second pump laser 33', coupled to second optical fiber 12' and wherein said first and second supervisory unit 23, 23' (same as monitoring receivers) are connected such that said first control information is sent from said first monitoring receiver to said

second monitoring receiver (figure 14 clearly shown first supervisory unit 23 connected to second supervisory unit 23').

Regarding claim 2, Sugiyama further discloses in col. 3, lines 59-62, the command signal (same as control information) is superimposed onto the optical carrier signal (same as modulated onto an envelope of said optical signal).

Regarding claims 3 and 20, Sugiyama further discloses control information is a command to adjust a bias current of one of said at least one first and said at least one second pump lasers (col. 10, lines 30-55).

Regarding claims 4, 5, 21 and 22, Sugiyama further discloses control information is a command to measure a power of one of the first and second pump lasers 33 and 33' and a power of an optical signal transmitted over one of said first and second optical fibers 12 and 12' (col. 10, lines 30-67).

Regarding claims 6 and 23, Sugiyama further discloses first supervisory unit (same as a first monitoring receiver) comprises: a first demodulating unit 382 of figure 11 (col. 10, lines 35-36) for demodulating the first command signal (same as first control information signal) from the first optical signal (from optical line 12) and a first control unit 23 for operating on said demodulated first control information.

Regarding claims 7 and 24, Sugiyama discloses first control unit 23 is connected to first pump laser 33 and adjusts a bias current associated with first pump lasers 33 based on said demodulated first control information (col. 10, lines 30-55).

Regarding claims 8 and 25, Sugiyama discloses first control unit 23 is connected to first pump laser 33 and monitors a power associated with first pump laser 33 based on demodulated first control information (col. 10, lines 30-67).

Regarding claims 9 and 26, Sugiyama discloses second control unit 23' for operating on said demodulated first control information.

Regarding claims 10 and 27, Sugiyama discloses second control unit 23' is connected to second pump laser 33' and adjusts a bias current associated with second pump lasers 33' based on said demodulated first control information (col. 10, lines 30-55).

Regarding claims 11 and 28, Sugiyama discloses second control unit 23' is connected to second pump laser 33' and monitors a power associated with second pump laser 33' based on demodulated first control information (col. 10, lines 30-67).

Regarding claims 12 and 29, Sugiyama further discloses second supervisory unit (same as a first monitoring receiver) comprises: a second demodulating unit 382 of figure 11 (col. 10, lines 35-36) for demodulating the second command signal (same as first control information signal) from the second optical signal (from optical line 12) and a first control unit 23' for operating on said demodulated second control information.

Regarding claims 13 and 30, figure 14 of Sugiyama clearly shown second supervisory unit 23' connected to first supervisory unit 23. It is inherently that second supervisory unit 23' sends second control information to the first supervisory unit 23.

Regarding claims 14 and 31, Sugiyama further discloses a first secondary control Unit 23', connected to said first control unit 23, said second control unit 23', and said

at least one first pump laser 35, for controlling said at least one first pump laser 35 in accordance with said demodulated aid first control unit is malfunctioning (col. 10, lines 30-41).

Regarding claims 15 and 32, Sugiyama further discloses a second secondary control unit 23', connected to said first control unit 23, said second control unit 23', and said at least one second pump laser 35', for controlling said at least one first pump laser 35 in accordance with said demodulated first control information when said first control unit is malfunctioning(col. 10, lines 30-41).

Regarding claims 16 and 33, Sugiyama further discloses an address associated with said line unit 11, an operation code associated with an operation to be performed (col. 10, lines 43-46).

Regarding claim 17, Sugiyama discloses an optical communication system comprising: a plurality of line units 11 of figure 13, each connected to a first optical fiber 12 and a second optical fiber 12' which carry first and second optical signals, respectively, each said line unit 11 including:

a first monitoring receiver 23, coupled to said first optical fiber 12, for receiving first control information associated with said first optical signal; a second monitoring receiver 23', coupled to said second optical fiber 12', for receiving second control information associated with said second optical signal, and an interconnect for passing said first control information from said first monitoring receiver to said second monitoring receiver and said second control information from said second monitoring receiver to said first monitoring receiver; and two terminals (end office A, end office B),

one at either end of said first and second optical fibers 12 and 12', at least one of which transmits said first and second control information (CM).

Regarding claims 18 and 19, Sugiyama discloses wherein said line unit 11 includes at least two sets of pump lasers 33, 33', one each associated with said first and second monitoring receivers 23, 23' and wherein said first and second control information (CM, CM') is modulated onto an envelope of said first and second optical signals, respectively (col. 3, lines 54-57).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Sugaya et al. U.S. patent no. 6,377,395. Controller which controls a variable optical attenuator to control the power level of a wavelength multiplexed optical signal
 - b. Kram et al. U.S. patent no. 6,400,497. Method and apparatus for automatically identifying system fault in an optical communication system
 - c. Harano U.S. patent no. 6,151,148. Optical amplifier relay transmission system
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (703) 305-0932.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

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Supervisor, Jason Chan, can be reached on (703) 305-4729.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


M. R. SEDIGHIAN
PRIMARY EXAMINER